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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/776,202	02/02/2001	Harold R. Garner	119929-1028	1495

7590 10/23/2002
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EXAMINER

FORMAN, BETTY J

ART UNIT PAPER NUMBER

1634

DATE MAILED: 10/23/2002

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/776,202

Applicant(s)

GARNER, HAROLD R.

Examiner

BJ Forman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 62-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 62-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group III, Claims 62-69 in Paper No. 9 is acknowledged. Applicant's arguments regarding the restriction have been considered, but are deemed moot in view of the fact that Applicant has canceled the non-elected claims. However, for clarification, Applicant's arguments are addressed.

The traversal is on the grounds(s) that restriction is only required when the invention are independent and distinct. This is not found persuasive because dependent inventions may be properly restricted if they are distinct. As discussed in MPEP 803, one of the two criteria for requirement of restriction is that the "inventions must be independent (see MPEP 802.01, 806.04, 808.01) or distinct as claimed". Accordingly, the demonstration of distinctness of the inventions is sufficient grounds for restriction. As stated in MPEP 802.01 "(t)he law has long been established that dependent inventions (frequently termed related inventions) such as those used for illustration above may be properly divided if they are, in fact "distinct" inventions, even though dependent".

Applicant argues that the examiner has not provided reasons as to why the inventions are independent and distinct. However, the examiner provided three full pages of reasons why the inventions are independent and distinct (see Paper No. 7, pages 2-4). Because Applicant has canceled the non-elected claims and because Applicant has not distinctly and specifically pointed out the supposed errors in the examiner's reasoning the argument is not found persuasive.

An applicant further argues that it would not be undue burden to examine the claims of all groups I-IV. However, it is maintained that undue burden would be required to examine the claims of groups I, II and IV along with claims of group III as evidenced by the fact that the claims of groups I, II, III and IV have acquired a separate status in the art as recognized by

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their different classifications as recognized by their divergent subject matter and because a search of the subject matter of invention III is not co-extensive with a search of inventions I, II, and IV.

The requirement is still deemed proper and is therefore made FINAL.

Priority

2. Applicant's claim for domestic priority under 35 U.S.C. 119(e) and 120 is acknowledged. However, the Provisional Application 60/087,948, filed 6 June 1998 and the Non-Provisional Application 09/326,526, filed 4 June 1999 the upon which priority is claimed does not provide adequate support under 35 U.S.C. 112 for claims 62-69 of this application. The instant claims are drawn to a device comprising: a chemical reactor (Claim 62 and Claims 63-69 which depend from Claim 62) and further comprising a reagent manifold (Claim 63). While the '948 and '526 applications teach a reaction chamber, syringe injectors and liquid handling system. They do not teach the instantly claimed chemical reactor and reagent manifold which encompass a very large genus of reactors and manifolds. Because the '948 and '526 applications merely teach a reaction chamber, syringe injectors and liquid handling system the applications do not provide support for the broadly claimed chemical reactor and reagent manifold.

Specification

3. The Preliminary amendment filed 6 April 2001 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no

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amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

Claims 62 and 63 added in the Preliminary Amendment of 6 April 2001 recite "chemical reactor" (Claim 62); "reagent manifold" (Claim 63); "spatial optical modulators" and "reflectors" (Claim 67); "halogen lamp" and "light emitting diode" (Claim 68); and "reflective liquid crystal device" and "transmissive liquid crystal device" (Claim 68). While the specification teaches a reaction chamber, syringe injectors and mirrors (page 15, lines 1-15) liquid handling system (page 16, first full paragraph-page 17, first paragraph). The specification does not teach or describe the newly claimed chemical reactor, reagent manifold, spatial optical modulators, reflectors, halogen lamp, light emitting diode, reflective liquid crystal device, and transmissive liquid crystal device. Therefore, the Preliminary Amendment introduces new matter which is not supported by the specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 62-69 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to

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one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 62, 63, 67, 68 and 69 added in the Preliminary Amendment of 6 April 2001 recite "chemical reactor" (Claim 62 and depending Claims 63-69); "reagent manifold" (Claim 63); "spatial optical modulators" and "reflectors" (Claim 67); "halogen lamp" and "light emitting diode" (Claim 68); and "reflective liquid crystal device" and "transmissive liquid crystal device" (Claim 69). While the specification teaches a reaction chamber, syringe injectors and mirrors (page 15, lines 9-10) and liquid handling system (page 16, first paragraph-page 17, first paragraph). The specification does not teach or describe the newly claimed chemical reactor and reagent manifold in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

To the extent that the claimed devices are not described in the instant disclosure, claims 62-69 are also rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention, since a disclosure cannot teach one to make or use something that has not been described.

MPEP 2163.06 notes "IF NEW MATTER IS ADDED TO THE CLAIMS, THE EXAMINER SHOULD REJECT THE CLAIMS UNDER 35 U.S.C. 112, FIRST PARAGRAPH - WRITTEN DESCRIPTION REQUIREMENT. *IN RE RASMUSSEN*, 650 F.2D 1212, 211 USPQ 323 (CCPA 1981)." MPEP 2163.02 teaches that "Whenever the issue arises, the fundamental factual inquiry is whether a claim defines an invention that is clearly conveyed to those skilled in the art at the time the application was filed...If a claim is amended to include subject matter, limitations, or terminology not present in the application as filed, involving a departure from, addition to, or deletion from the disclosure of the application as filed, the examiner should conclude that the claimed subject matter is not described in that application." MPEP 2163.06 further notes "WHEN AN AMENDMENT IS FILED IN REPLY TO AN OBJECTION OR REJECTION BASED ON 35 U.S.C. 112, FIRST PARAGRAPH, A STUDY OF THE ENTIRE APPLICATION IS OFTEN NECESSARY TO DETERMINE WHETHER OR NOT "NEW MATTER" IS INVOLVED. APPLICANT SHOULD THEREFORE SPECIFICALLY POINT OUT THE SUPPORT FOR ANY AMENDMENTS MADE TO THE DISCLOSURE" (emphasis added).

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Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

7. Claims 62-69 are rejected under 35 U.S.C. 102(e) as being anticipated by Fodor et al (U.S. Patent No. 6,379,895, filed 6 December 1990).

Regarding Claim 62, Fodor et al disclose a device for synthesizing a plurality of multimers comprising: a chemical reactor comprising one or more isolated reaction sites and an optical system operably linked to the chemical reactor which selectively irradiates one or more reaction sites (Column 18, line 32-Column 19, line 42 and Fig. 12).

Regarding Claim 63, Fodor et al disclose the device further comprising a reagent manifold (i.e. pump) operably linked to the chemical reactor (Column 19, lines 3-9).

Regarding Claim 64, Fodor et al disclose the device further comprising a controller for controlling the optical system (i.e. computer and computer program Column 22, lines 1-10 and Tables 4 & 5).

Regarding Claim 65, Fodor et al disclose the device wherein the controller is a computer (Column 22, lines 1-10 and Tables 4 & 5).

Regarding Claim 66, Fodor et al disclose a device for synthesizing a plurality of multimers comprising: a chemical reactor comprising one or more reactor sites, a reagent manifold operably linked to the chemical reactor, an optical system operably linked to the

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chemical reactor which selectively irradiates one or more reaction sites, and a controller operably linked to the optical system for controlling the selective irradiation of reaction sites (Column 18, line 32-Column 19, line 42; Column 22, lines 1-10 and Tables 4 & 5; and Fig. 12).

Regarding Claim 67, Fodor et al disclose the device wherein the optical system comprises a light source, filter system, lenses, spatial optical modulator and reflectors (Column 16, line 15-Column 17, line 14; Column 18, line 32-Column 19, line 42; and Fig. 12).

Regarding Claim 68, Fodor et al disclose the device wherein the light source is selected from the groups Xenon, laser and light emitting diode (Column 16, line 15-53; Column 19, lines 10-31; and Fig. 12).

Regarding Claim 69, Fodor et al disclose the device wherein the spatial optical modulator is selected from the group consisting of reflective and transmissive liquid crystal device (Column 17, lines 2-11).

8. Claims 62-69 are rejected under 35 U.S.C. 102(e) as being anticipated by Cerrian et al (U.S. Patent No. 6,375,903 B1, filed 23 February 1998).

Regarding Claim 62, Cerrian et al disclose a device for synthesizing a plurality of multimers comprising: a chemical reactor comprising one or more isolated reaction sites and an optical system operably linked to the chemical reactor which selectively irradiates one or more reaction sites (Claims 1-15 and Fig. 1).

Regarding Claim 63, Cerrian et al disclose the device further comprising a reagent manifold (i.e. flow cell) operably linked to the chemical reactor (Claims 1-15 especially Claim 14 and Fig. 1).

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Regarding Claim 64, Cerrian et al disclose the device further comprising a controller for controlling the optical system (Claims 1-15 especially Claim 6 and Fig. 1).

Regarding Claim 65, Cerrian et al disclose the device wherein the controller is a computer (Claims 1-15 especially Claim 6 and Fig. 1).

Regarding Claim 66, Cerrian et al disclose a device for synthesizing a plurality of multimers comprising: a chemical reactor comprising one or more reactor sites, a reagent manifold operably linked to the chemical reactor, an optical system operably linked to the chemical reactor which selectively irradiates one or more reaction sites, and a controller operably linked to the optical system for controlling the selective irradiation of reaction sites (Claims 1-15 and Fig. 1).

Regarding Claim 67, Cerrian et al disclose the device wherein the optical system comprises a light source, filter system, lenses, spatial optical modulator and reflectors (Claims 1-15 and Fig. 1).

Regarding Claim 68, Cerrian et al disclose the device wherein the light source is selected from the group including mercury lamp (Column 4, line 66-Column 5, line 11).

Regarding Claim 69, Cerrian et al disclose the device wherein the spatial optical modulator is selected from the group consisting of digital micromirror (Column 5, lines 41-61).

9. Claims 62-69 are rejected under 35 U.S.C. 102(e) as being anticipated by Gao et al (U.S. Patent No. 6,426,184, filed 11 February 1998).

Regarding Claim 62, Gao et al disclose a device for synthesizing a plurality of multimers comprising: a chemical reactor comprising one or more isolated reaction sites and an optical

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system operably linked to the chemical reactor which selectively irradiates one or more reaction sites (Column 24, line 36-Column 26, line 52 and Fig. 8).

Regarding Claim 63, Gao et al disclose the device further comprising a reagent manifold operably linked to the chemical reactor (Column 24, lines 38-55).

Regarding Claim 64, Gao et al disclose the device further comprising a controller for controlling the optical system (Column 24, lines 38-42 and Column 30, lines 11-28).

Regarding Claim 65, Gao et al disclose the device wherein the controller is a computer (Column 30, lines 11-28).

Regarding Claim 66, Gao et al disclose a device for synthesizing a plurality of multimers comprising: a chemical reactor comprising one or more reactor sites, a reagent manifold operably linked to the chemical reactor, an optical system operably linked to the chemical reactor which selectively irradiates one or more reaction sites, and a controller operably linked to the optical system for controlling the selective irradiation of reaction sites (Column 24, line 36-Column 26, line 52 and Fig. 8).

Regarding Claim 67, Gao et al disclose the device wherein the optical system comprises a light source, filter system, lenses, spatial optical modulator and reflectors (Column 24, line 36-Column 26, line 52 and Fig. 8).

Regarding Claim 68, Gao et al disclose the device wherein the light source is selected from the group including mercury lamp, xenon lamp, halogen lamp, laser and light emitting diode (Column 25, lines 6-21).

Regarding Claim 69, Gao et al disclose the device wherein the spatial optical modulator is selected from the group consisting of digital micromirror, transmissive liquid crystal and reflective liquid crystal (Column 25, line 34-Column 26, line 22).

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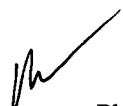
Conclusion

10. No claim is allowed.

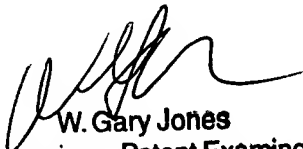
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BJ Forman whose telephone number is (703) 306-5878. The examiner can normally be reached on 6:30 TO 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jones can be reached on (703) 308-1152. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 308-8724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.



BJ Forman, Ph.D.
Patent Examiner
Art Unit: 1634
October 15, 2002



W. Gary Jones
Supervisory Patent Examiner
Technology Center 1600